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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

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Examiner: Shubo (Joe) ZHOU

Title: METHODS AND COMPUTER SOFTWARE PRODUCTS FOR

TRANSCRIPTIONAL ANNOTATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

SIR:

PROPOSED CLAIM AMENDMENTS FOR DISCUSSION WITH EXAMINER ZHOU

What is claimed is:

- 1. (amended) A method for identifying a transcribed region of interest of a genome comprising:
- a) Hybridizing a plurality of nucleic acid probes with a nucleic acid sample, wherein said nucleic acid sample comprises transcripts from said genome, wherein said probes are targeting an area of said genome; and
- b) Identifying said transcribed region as a region of said genome where hybridization of all consecutive probes

targeting said region are above a threshold value, wherein said threshold value is non-specific binding.

- 2. (unchanged)) The method of claim 1 wherein said probes are oligonucleotides.
- 3. (unchanged) The method of claim 3 wherein said oligonucleotides are immobilized on a substrate.
- 4. canceled.
- 5. (amended) The method of <u>claim 1</u> claim 4 wherein said non-specific binding is measured using a probe designed to containing at least one mismatched base.
- 6. (amended) The method of claim 1 further comprising:
- c) Identifying a sub-region wherein hybridization of said probes targeting said <u>sub-region</u> sub-region is similar and, thereby indicating said sub-region as said transcribed region.
- 7. (unchanged) The method of claim 6 wherein said genome is from a prokaryote.
- 8. (unchanged) The method of claim 7 wherein said transcribed region is an operon.
- 9. (amended) The method of $\frac{1}{2}$ claim 7 wherein said prokaryote is bacteria.